

# **Plaistow Commuter Rail Extension Study**



**Public Informational Meeting  
October 9, 2014  
Location: Plaistow Town Hall**

# AGENDA

- Welcome & Introductions
- Overview & Background of the Study
- Environmental Assessment Process
- Alternative Development
  - Site Options
  - Site Options Screening
- Alternative Analysis Process
  - 3 Site Alternatives
  - Land Use & Economics
  - Noise & Vibration
- Next steps

# PROJECT ADVISORY COMMITTEE

- PAC MEMBERS

- Town of Plaistow – Sean Fitzgerald; (Alternate) Tim Moore
- Town of Atkinson – David Harrigan; (Alternate) Robert J. Clark
- Merrimack Valley Planning Commission – Todd Fontanella
- Rockingham Planning Commission – Cliff Sinnott
- Massachusetts Bay Transportation Authority – Ron Morgan
- Northern New England Passenger Rail Authority – Jim Russell
- Pan Am Railways – Cynthia S. Scarano
- City of Haverhill – Mayor's Office

- NHDOT TEAM

- Shelley Winters

- HDR ENGINEERING TEAM

- Ron O'Brien, John Weston, Stefanie McQueen, Kris Erikson, Katie Rougeot, Jamie Paine

# OVERVIEW OF THE STUDY

- **GOAL:** Evaluate the extension of the MBTA Haverhill Line commuter rail service from Haverhill, MA to Plaistow, NH. Locate a new layover facility and station.





# BACKGROUND/HISTORY

1990s

Potential Rail Extension Identified and Studied

2008

MBTA Involved Plaistow about locating Layover Facility and Station

2010

MBTA Obtained rights to operate on Pam Am Railway Lines  
MBTA/NHDOT Funding Application

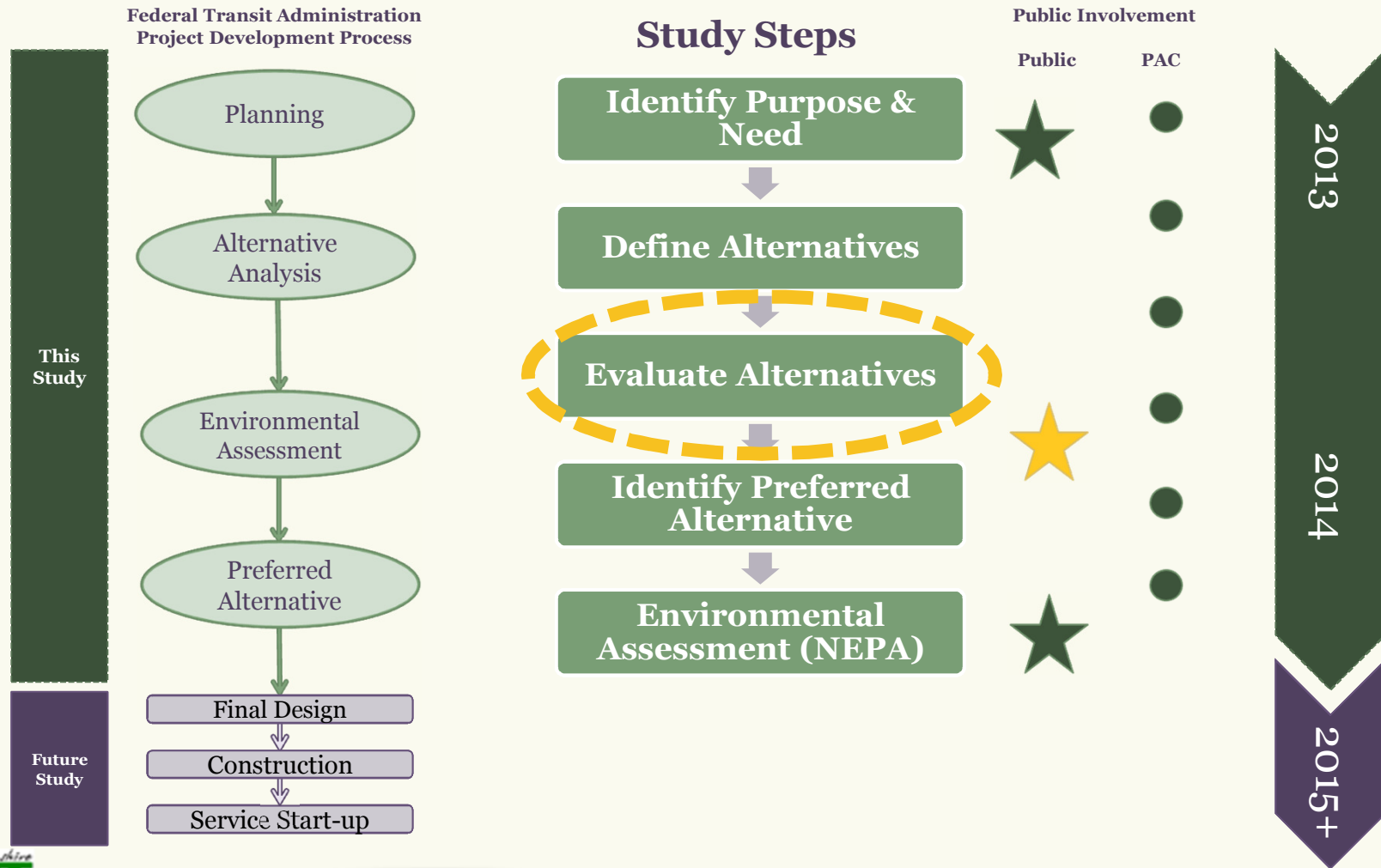
2011

Plaistow CMAQ Application to NHDOT partially funded

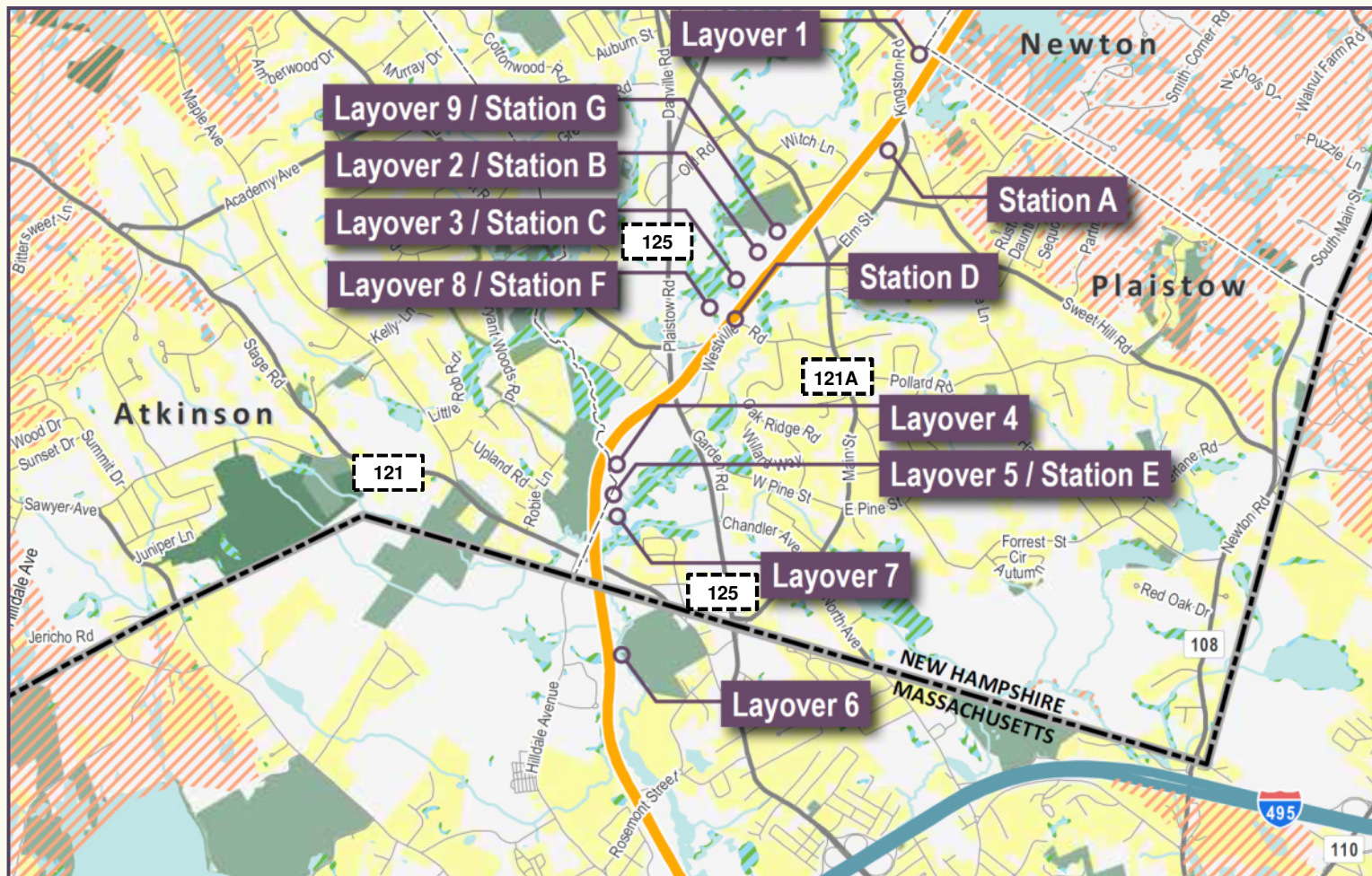
2013

Feasibility / Environmental Assessment Study

# ENVIRONMENTAL ASSESSMENT PROCESS



# SITE OPTIONS



# SINCE LAST MEETING

## Site Option Development

### Site Option Screening

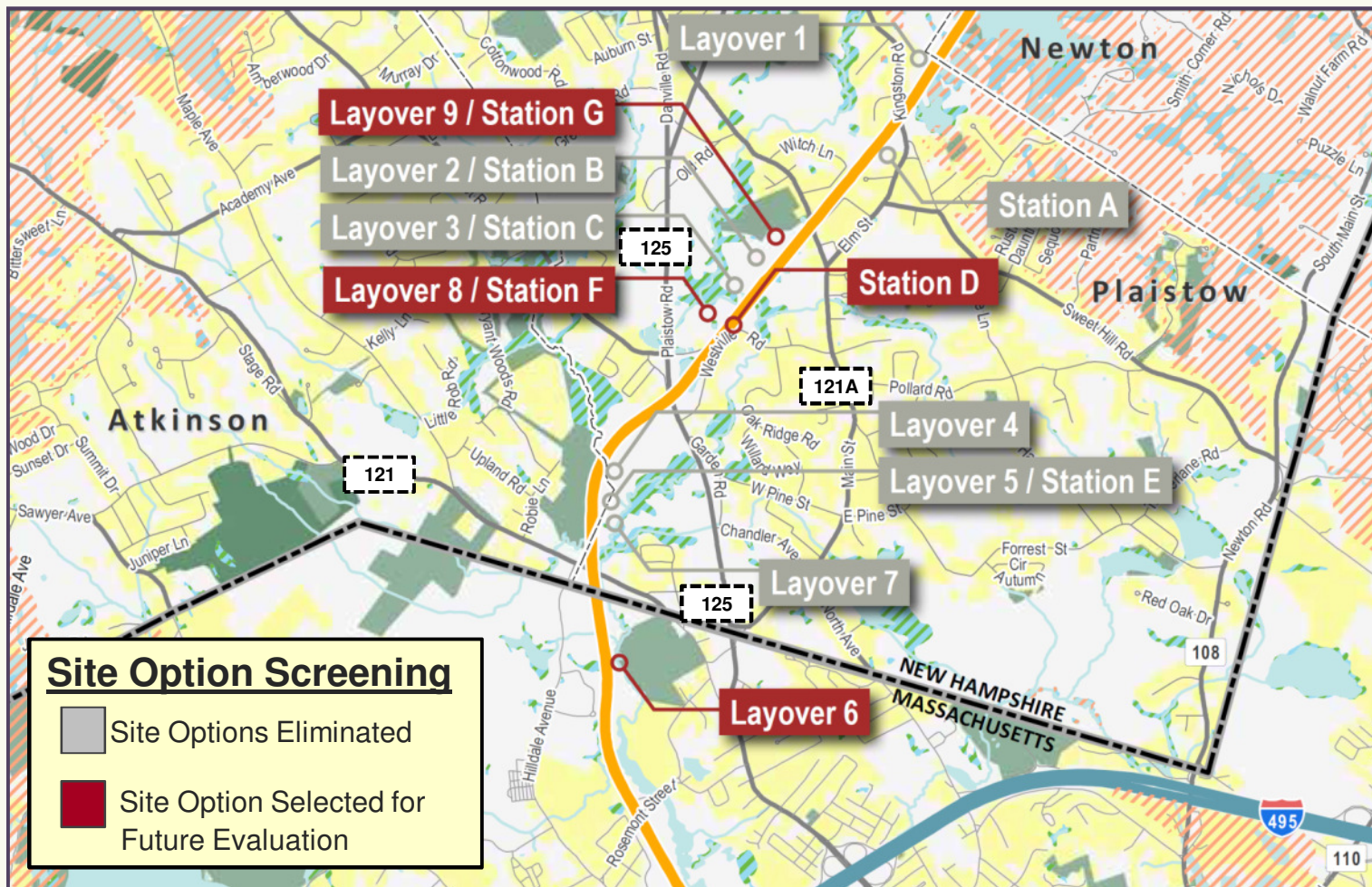
- Input from PAC, Public, Town Selectmen

### Site Selected for Further Evaluation

- 3 Alternatives

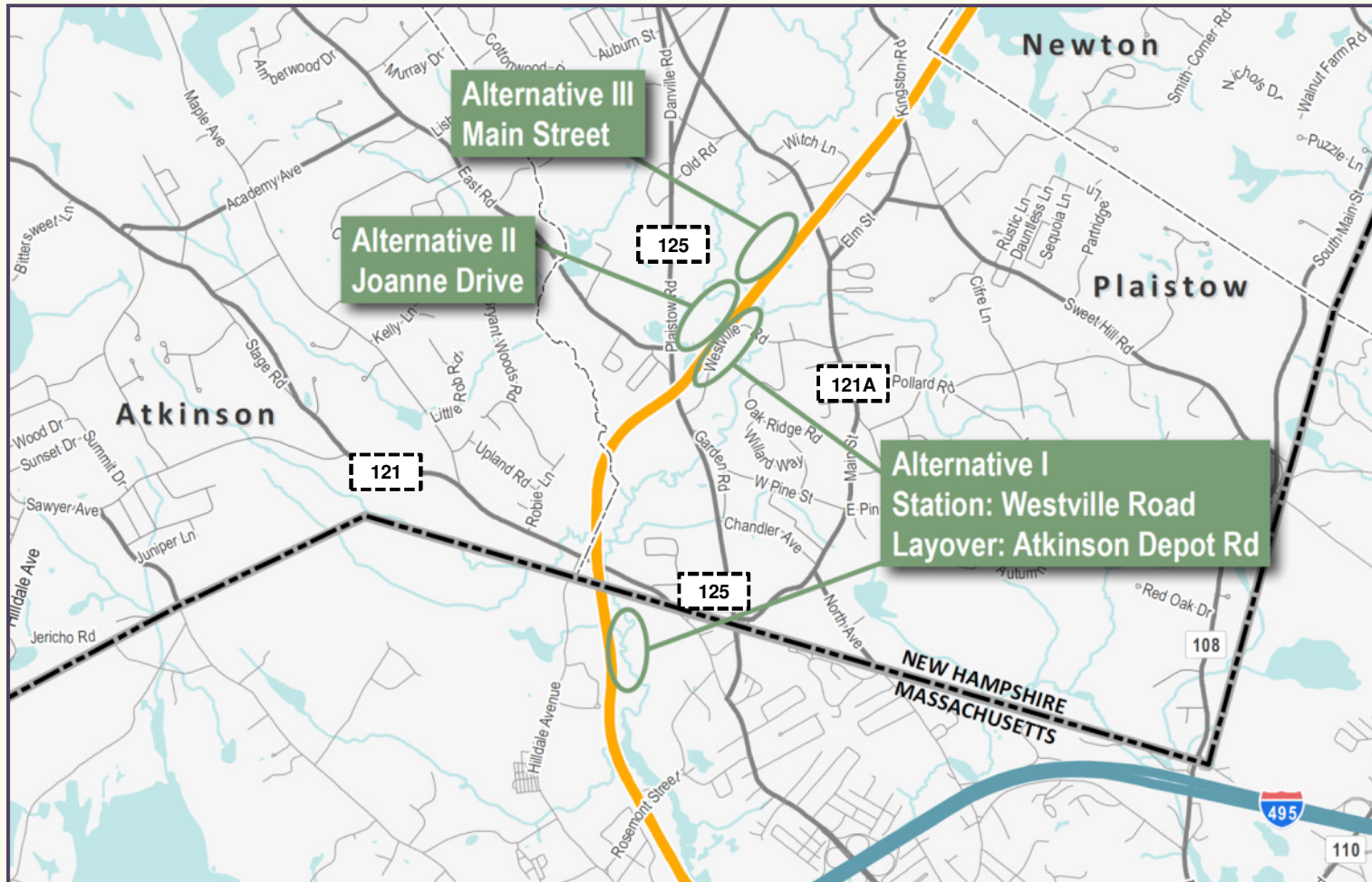


# SITE OPTION SCREENING





# ALTERNATIVE SITES



# Alternative Analysis process

- Field and Site Visits
  - Environmental Resources
  - Noise & Vibration
  - Tour of Scituate Layover Facility
  - Operations Analysis
- Further Development of the Site Layouts
- Ridership
- Land use & Economic

# ALTERNATIVE EVALUATION CRITERIA

## Completed

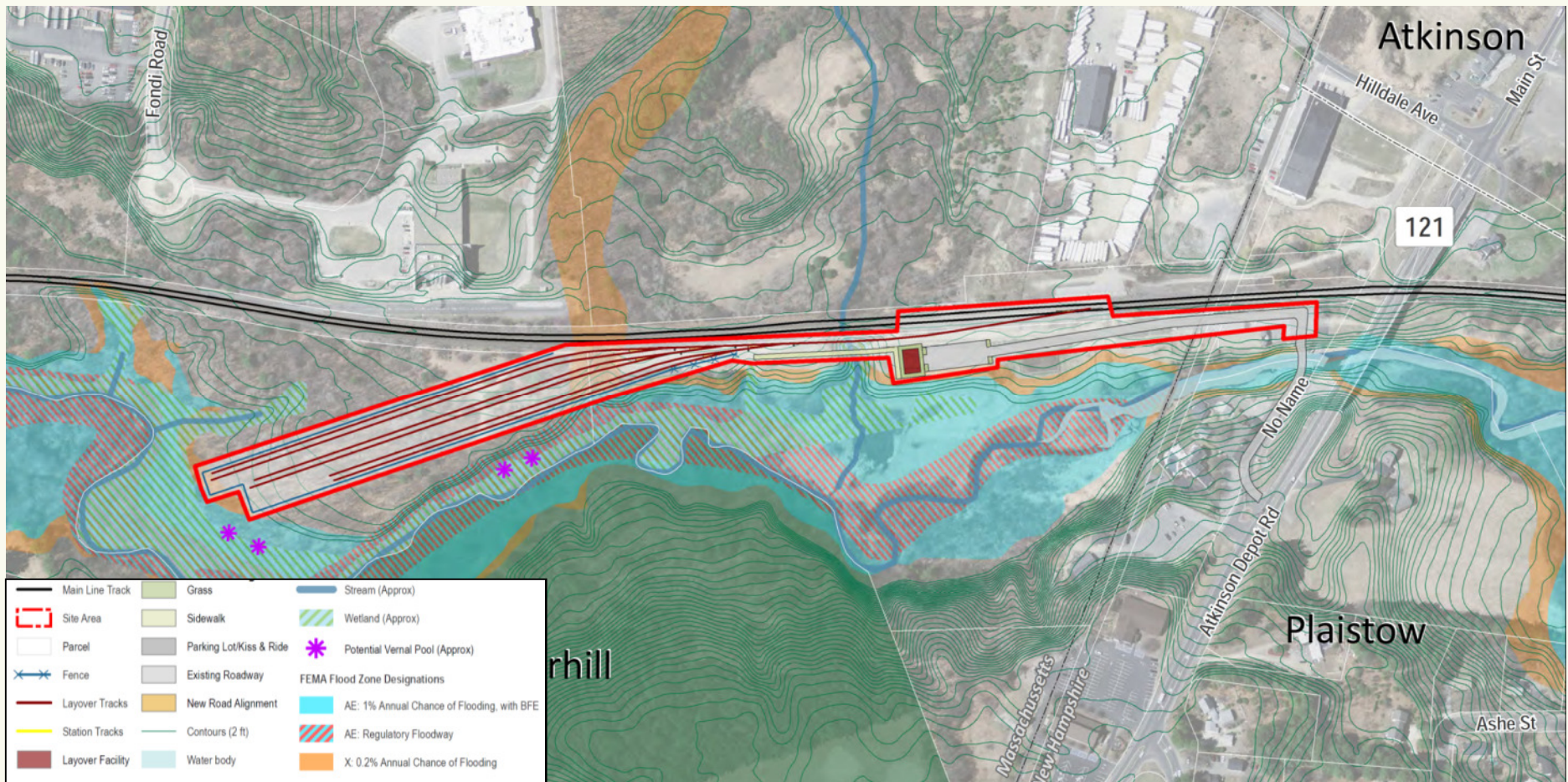
- Land Acquisitions and Displacements
- Socio-economic / Environmental Justice
- Visual Resources / Aesthetics
- Operational Feasibility
- Hazardous Materials
- Natural and Cultural Resources
- Land Use / Neighborhood Character / Zoning

## In Process

- Traffic
- Air Quality
- Noise and Vibration

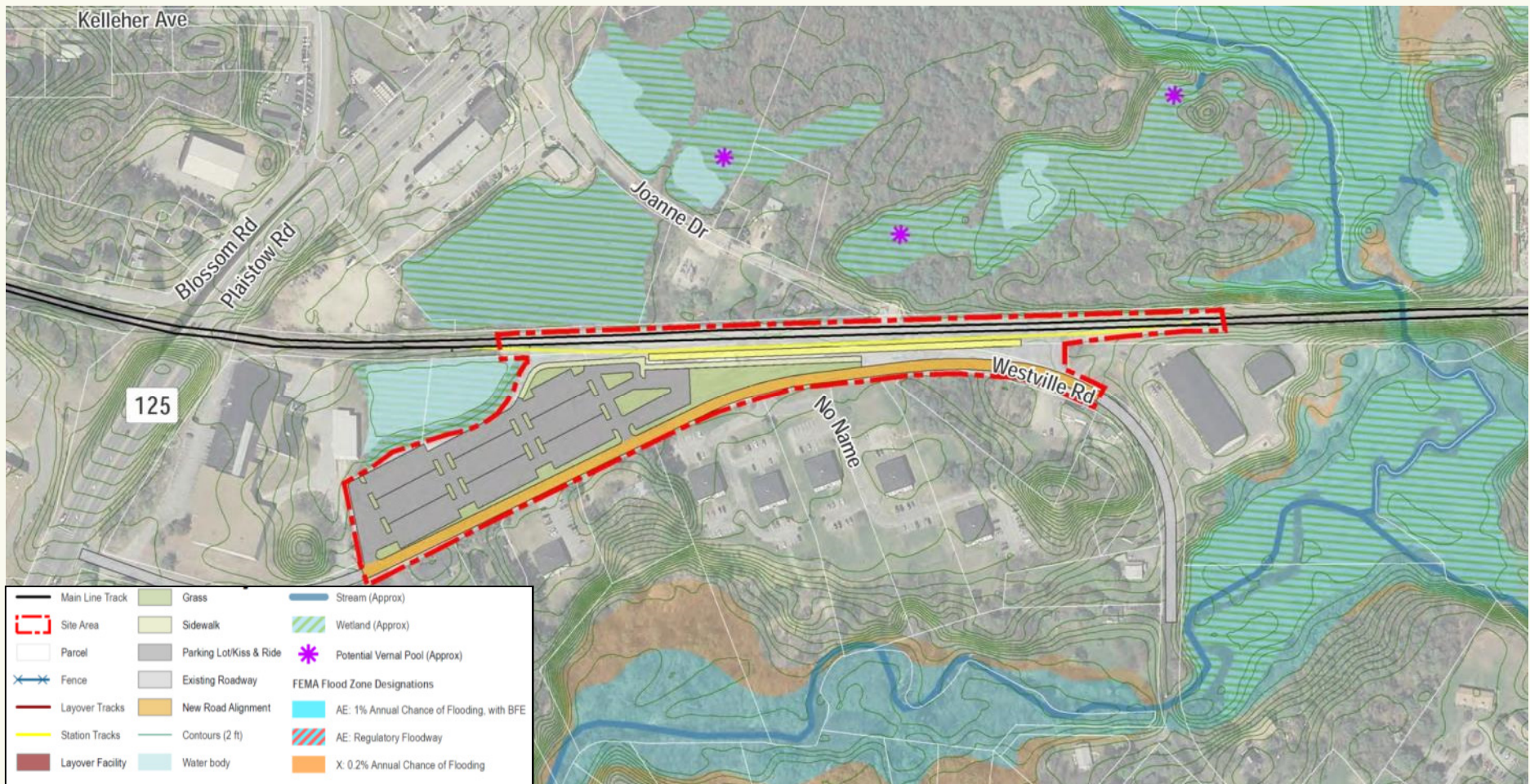


# ALTERNATIVE I (LAYOVER)



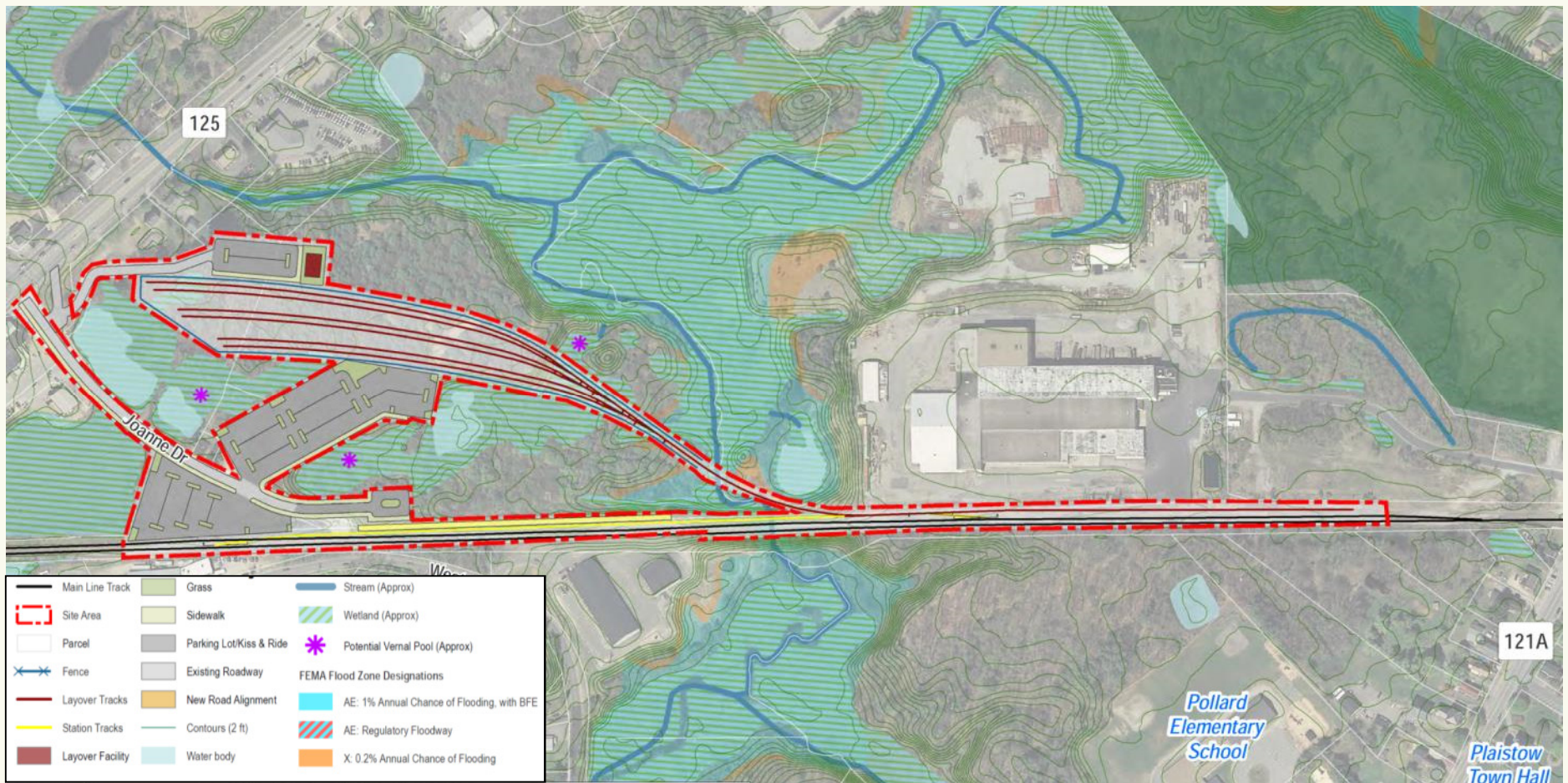


# ALTERNATIVE I (STATION)



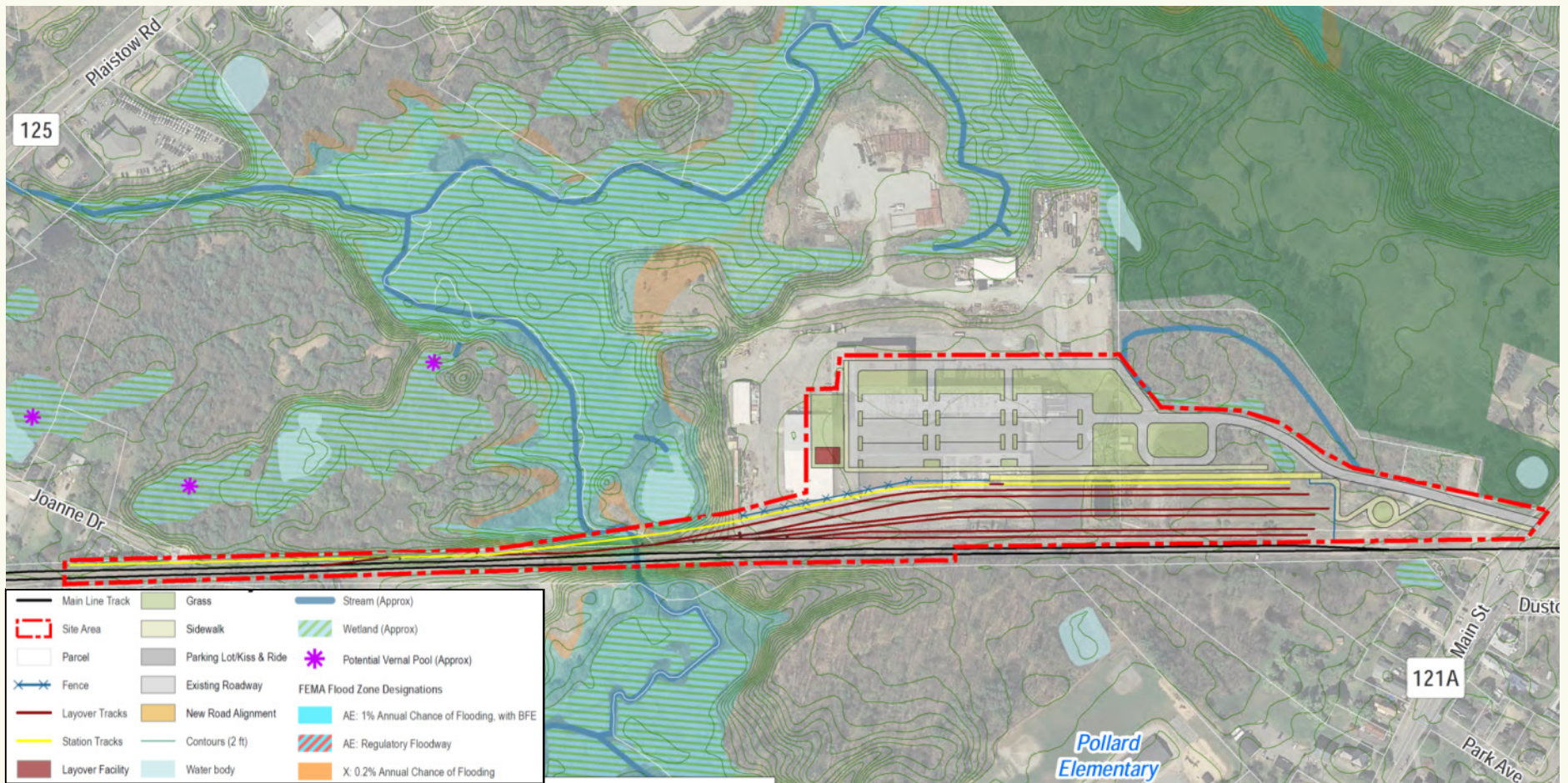


# ALTERNATIVE II



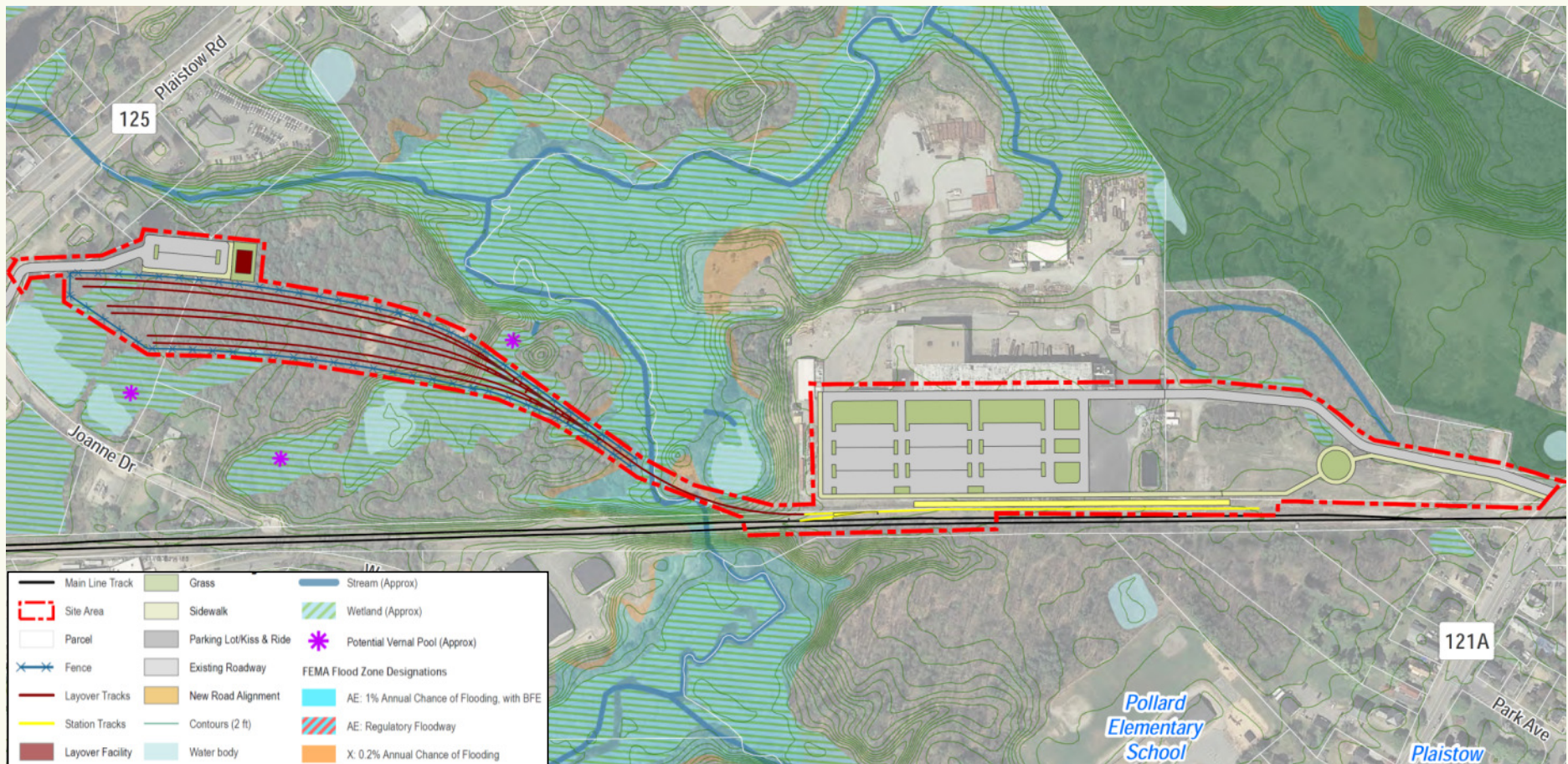


# ALTERNATIVE III





# OPTION OF ALT II LAYOVER & ALT III STATION



# NOISE & VIBRATION ANALYSIS

- Federal Transportation Administration (FTA) Guidelines process used to evaluate noise & vibration

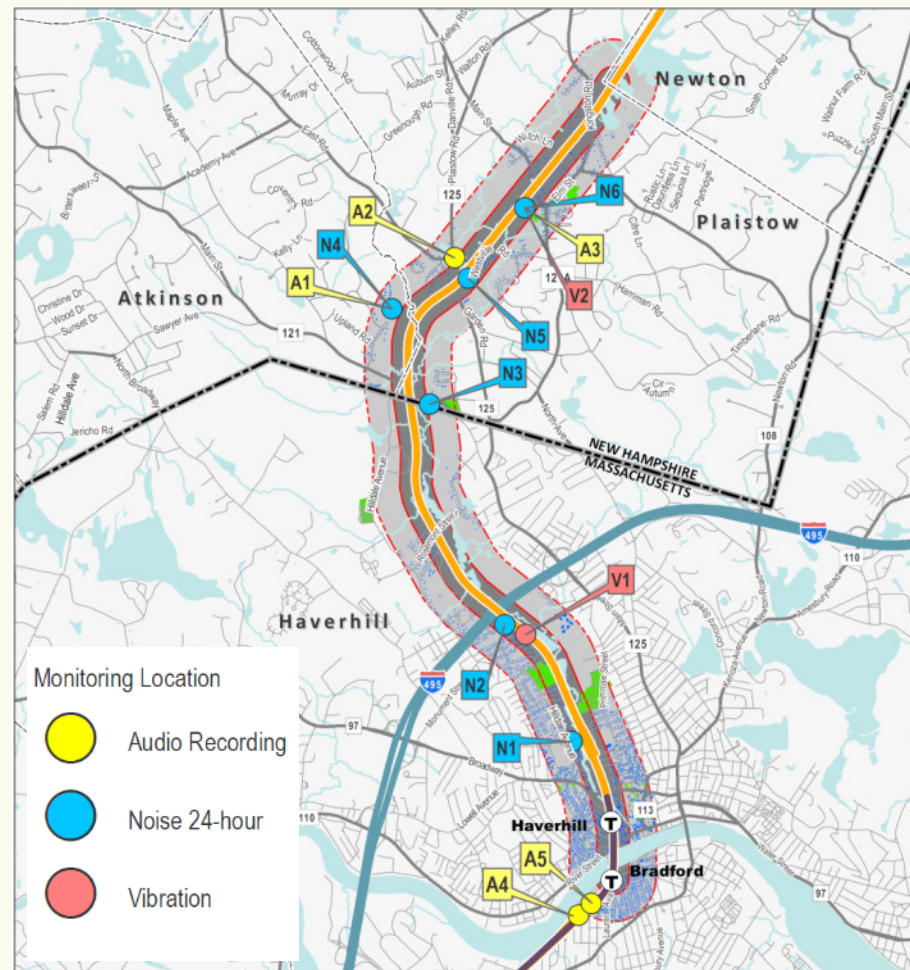
## Steps Include:

- Identify noise-sensitive land uses
- Measure existing noise levels
- Calculate allowable increase in noise
- Calculate project related noise levels
- Determine if impacts will occur.
- Identify mitigation measures, as needed.



# NOISE SENSITIVE LAND USES

- Identify noise-sensitive land uses and receptors (i.e., sites or buildings) by categories:
  - **Category 1:** Quiet is essential element in intended purpose (e.g., outdoor pavilion or concert hall)
  - **Category 2:** Where overnight sleep occurs (e.g., home, hospital, or hotel)
  - **Category 3:** Institutional land uses used primarily during day or evening (e.g., schools, libraries, theaters, churches)

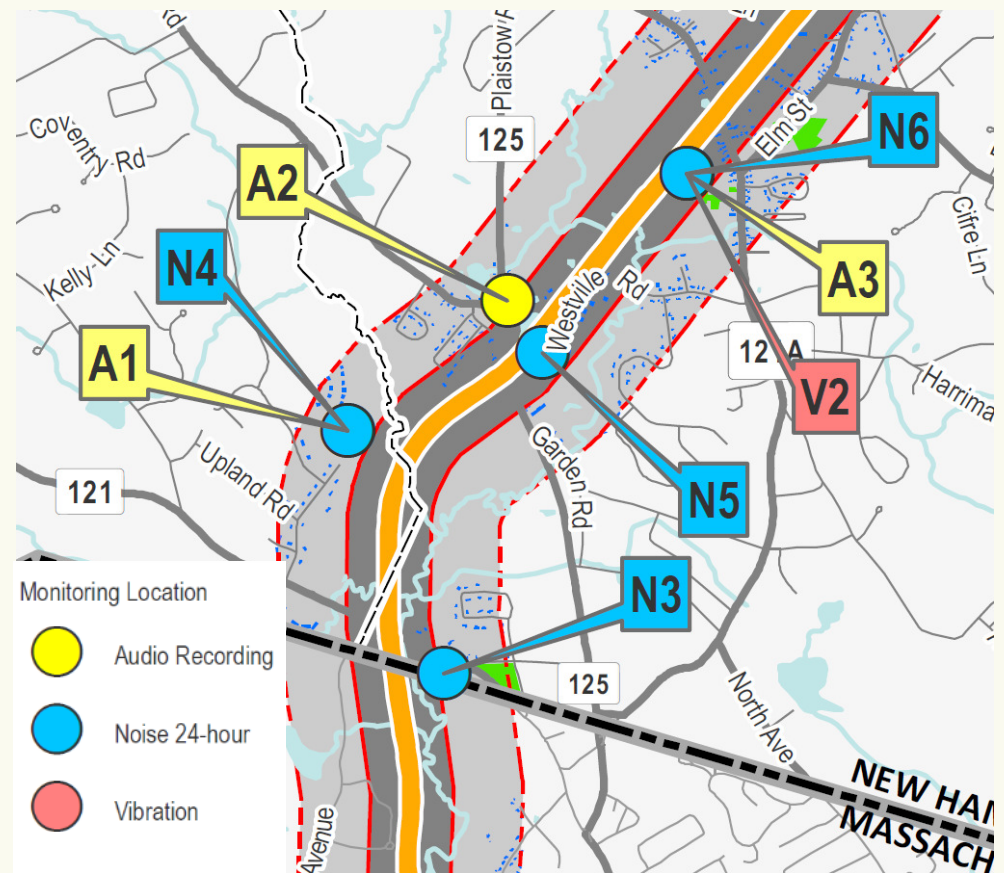


Plaistow Commuter Rail Extension Study



# NOISE MEASUREMENT LOCATIONS

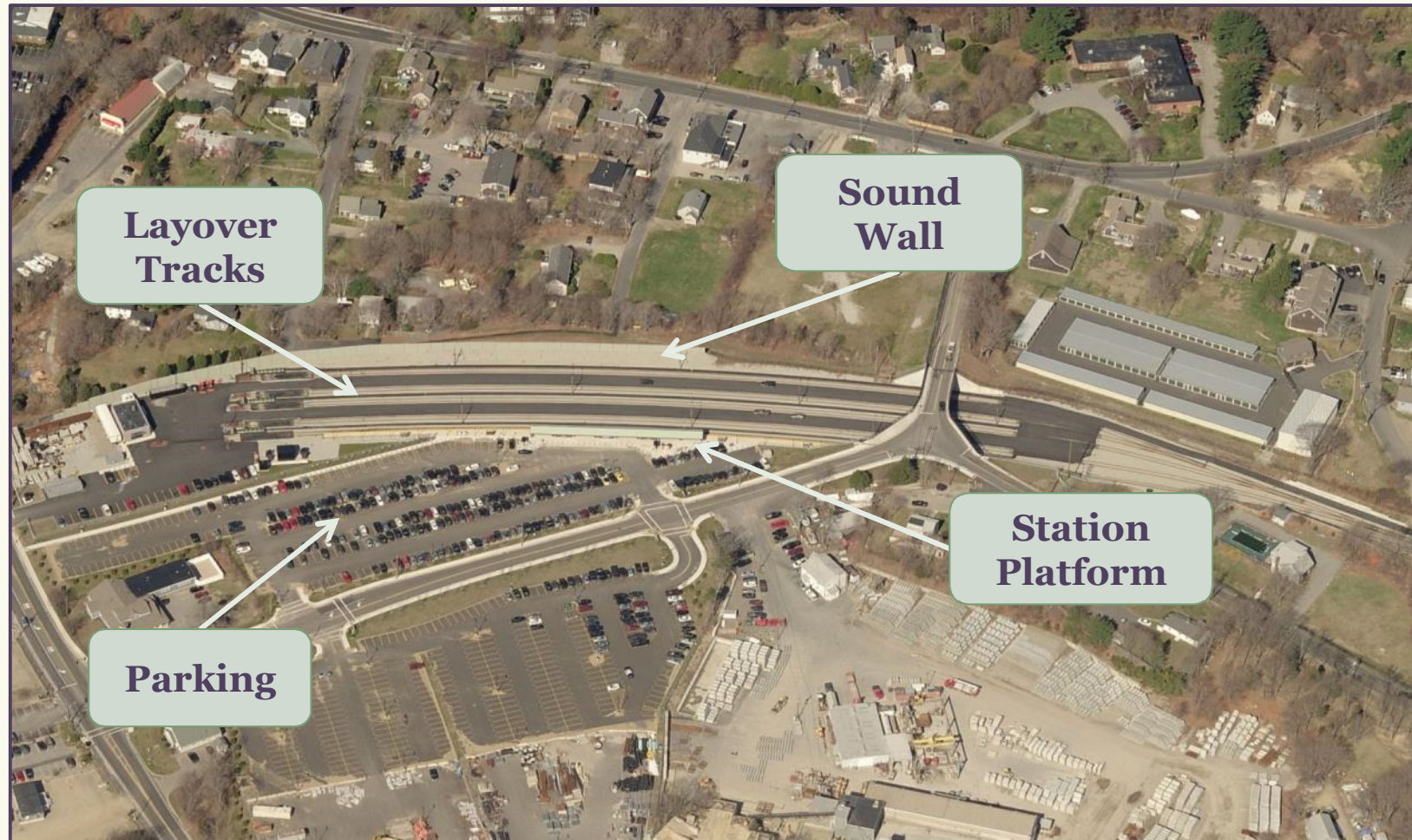
- Measure existing noise levels for selected locations along the project corridor.
  - N-3: Holy Angels Kindergarten & Preschool
  - N-4: Cul-de-sac at Bayberry Drive
  - N-5: Westville Road park-and-ride lot
  - N-6: Pollard Elementary School



# NEXT STEPS – NOISE & VIBRATION

- Use base data from selected locations to calculate existing noise for all receptors
- Calculate allowable increase in noise using FTA noise modeling thresholds
- Calculate project related noise levels
- Determine locations that exceed allowable threshold
- Identify mitigation for sites that exceed the threshold
- Create a noise simulation model for final recommended alternative

# MBTA GREENBUSH STATION & LAYOVER FACILITY (SCITUATE, MA)





# MBTA GREENBUSH LAYOVER FACILITY - SITE LAYOUT

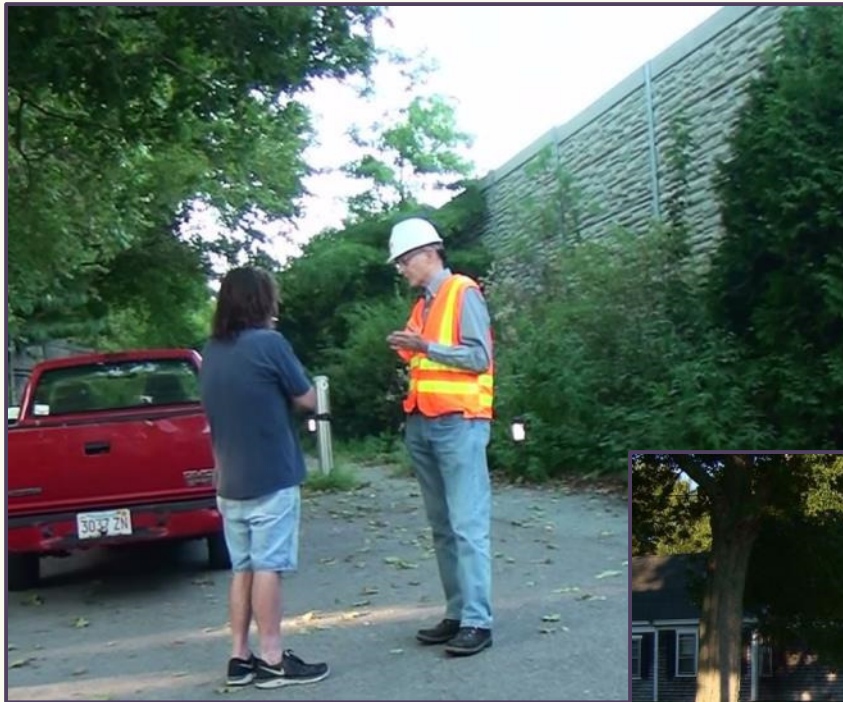


# MBTA GREENBUSH LAYOVER FACILITY - NOISE WALL





# MBTA GREENBUSH LAYOVER FACILITY - NOISE WALL FROM NEIGHBORHOOD



WEEKDAY LOCOMOTIVE START TIMES					
TRACK	1	2	3	4	WALL
TRAIN	070	072	074	076	
START TIME	4:04	4:59	5:22	6:10	
LV. STATION	5:40	6:37	7:03	7:50	

WEEKEND AND HOLIDAY LOCOMOTIVE START TIMES					
TRACK	1	2	3	4	WALL
TRAIN	1070/2070				
START TIME	5:46				
LV. STATION	7:15				



# PURPOSE & NEED REVIEW

- **PURPOSE**

- Provide an additional travel mode options that increase overall mobility in Plaistow and surrounding communities.

- **NEED**

- Travel mode options for Plaistow and surrounding communities are needed to improve mobility and access to employment for residents and businesses in the Plaistow area while increasing opportunities for economic development.



# MBTA COMMUTER RAIL LINES



# COMMUTING PATTERNS COMPARISON

City Pair	Littleton, Massachusetts	Ayer, Massachusetts	Shirley, Massachusetts	Plaistow, New Hampshire
Approximate Distance from Boston - North Station	29 Miles	36 Miles	39 Miles	38 Miles
Weekday MBTA Commuter Rail Round Trips	17	13	13	0
Average Trip Time on Commuter Rail (minutes)	60	68	73	80
Typical Inbound Weekday Boardings	313	435	315	n/a
Average Trip Time in Passenger Car (minutes)	42 (75+ in traffic)	51(80+ in traffic)	55 (90+ in traffic)	43 (100+ in traffic)
Total Population	8,810	7,427	7,211	7,609
Total Workers	4,088	3,687	2,923	4,032
Work in MA	96%	100%	95%	48%
Work in Boston	7%	8%	11%	4%
Public Transit for Commute	3%	5%	6%	1%



# ALTERNATIVE TRANSIT MODE BENEFITS

- Train travel can reduce commute time compared to highway on I-93
  - NH - Route 128 highway travel up to 40% longer during commuting hours
  - Rte 128 - Boston highway travel up to 100% longer during commuting hours
  - Monthly, highway commute expects length four times vs non-peak periods

## Alternative Mode Attraction

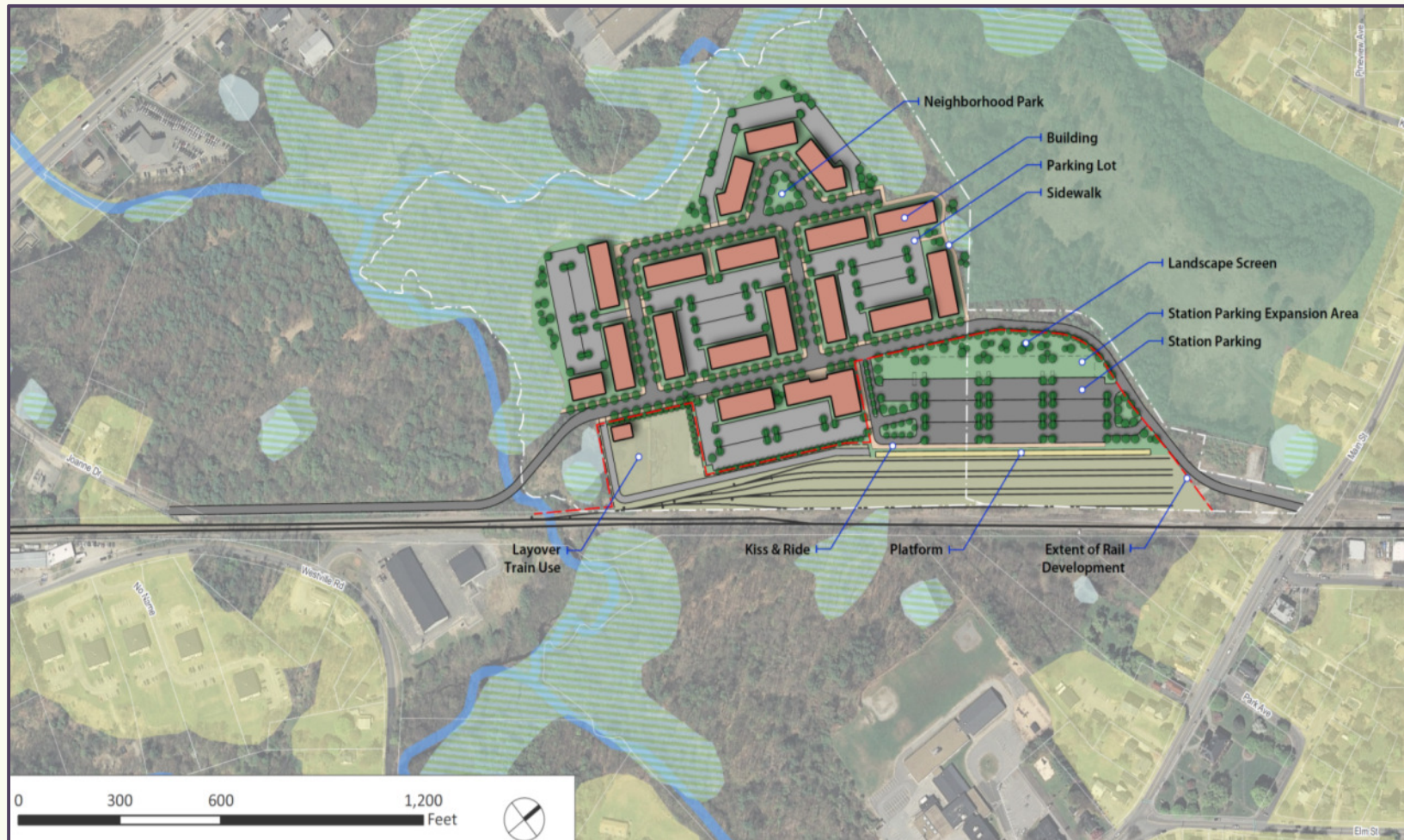
From October 2014

Business NH Magazine

**G**ray Chynoweth, COO of hot tech company Dyn in Manchester, traveled to Boston last year to meet a group of about 60 young tech professionals looking for jobs. He told them about Dyn's innovative work in Internet performance, its growth opportunities for employees and its award-winning culture. Then he asked, "So who is open to working in Manchester at Dyn?"

Only four hands went up. "I got this real negative vibe. I couldn't believe it," Chynoweth says. "Then I asked, 'What if you could hop on the train in North Station and be in Manchester in about an hour?' And suddenly there were 34 hands in the air."

# TOD DEVELOPMENT POTENTIAL





# NEXT STEPS

- Complete Alternative Analysis
  - Traffic
  - Noise and Vibration
  - Air quality
  - Cost & Ridership
- Receive Public and PAC Comments
- Select Preferred Alternative
- Develop a Draft Environmental Assessment of Preferred Alternative

Next PAC Meeting: November 2014

Next Public Meeting: December 2014